



OIPE

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/091,166B

DATE: 09/26/2002

TIME: 14:12:44

Input Set : A:\97.44D1.subseqlist2.txt

Output Set: N:\CRF4\09252002\J091166B.raw

```

4 <110> APPLICANT: Adler, David A.
5   Holloway, James L.
6   Baindur, Nand
7   Beigel-Orme, Stephanie
8   Sheppard, Paul O.
10 <120> TITLE OF INVENTION: NOVEL BETA-DEFENSINS
13 <130> FILE REFERENCE: 97-44D1
15 <140> CURRENT APPLICATION NUMBER: US 10/091,166B
16 <141> CURRENT FILING DATE: 2002-03-05
18 <150> PRIOR APPLICATION NUMBER: US 09/636,399
19 <151> PRIOR FILING DATE: 2000-08-10
21 <150> PRIOR APPLICATION NUMBER: US 09/344,097
22 <151> PRIOR FILING DATE: 1999-06-25
24 <150> PRIOR APPLICATION NUMBER: US 09/150,786
25 <151> PRIOR FILING DATE: 1998-09-10
27 <150> PRIOR APPLICATION NUMBER: US 60/064,294
28 <151> PRIOR FILING DATE: 1997-11-05
30 <150> PRIOR APPLICATION NUMBER: US 60/058,335
31 <151> PRIOR FILING DATE: 1997-09-10
33 <160> NUMBER OF SEQ ID NOS: 72
35 <170> SOFTWARE: FastSEQ for Windows Version 4.0
37 <210> SEQ ID NO: 1
38 <211> LENGTH: 219
39 <212> TYPE: DNA
40 <213> ORGANISM: Homo sapiens
42 <220> FEATURE:
43 <221> NAME/KEY: CDS
44 <222> LOCATION: (1)...(195)
46 <400> SEQUENCE: 1
47 atg agg atc cat tat ctt ctg ttt gct ttg ctc ttc ctg ttt ttg gtg   48
48 Met Arg Ile His Tyr Leu Leu Phe Ala Leu Leu Phe Leu Phe Leu Val
49 1 5 10 15
51 cct gtt cca ggt cat gga gga atc ata aac aca tta cag aaa tat tat   96
52 Pro Val Pro Gly His Gly Gly Ile Ile Asn Thr Leu Gln Lys Tyr Tyr
53 20 25 30
55 tgc aga gtc aga ggc ggc cgg tgt gct gtg ctc agc tgc ctt cca aag   144
56 Cys Arg Val Arg Gly Gly Arg Cys Ala Val Leu Ser Cys Leu Pro Lys
57 35 40 45
59 gag gaa cag atc ggc aag tgc tcg acg cgt ggc cga aaa tgc tgc cga   192
60 Glu Glu Gln Ile Gly Lys Cys Ser Thr Arg Gly Arg Lys Cys Cys Arg
61 50 55 60
63 aga aagaaataaa aaccctgaaa catg   219
64 Arg

```

## RAW SEQUENCE LISTING

DATE: 09/26/2002

PATENT APPLICATION: US/10/091,166B

TIME: 14:12:44

Input Set : A:\97.44D1.subseqlist2.txt

Output Set: N:\CRF4\09252002\J091166B.raw

```

65 65
68 <210> SEQ ID NO: 2
69 <211> LENGTH: 65
70 <212> TYPE: PRT
71 <213> ORGANISM: Homo sapiens
73 <400> SEQUENCE: 2
74 Met Arg Ile His Tyr Leu Leu Phe Ala Leu Leu Phe Leu Phe Leu Val
75 1 5 10 15
76 Pro Val Pro Gly His Gly Gly Ile Ile Asn Thr Leu Gln Lys Tyr Tyr
77 20 25 30
78 Cys Arg Val Arg Gly Gly Arg Cys Ala Val Leu Ser Cys Leu Pro Lys
79 35 40 45
80 Glu Glu Gln Ile Gly Lys Cys Ser Thr Arg Gly Arg Lys Cys Cys Arg
81 50 55 60
82 Arg
83 65
86 <210> SEQ ID NO: 3
87 <211> LENGTH: 31
88 <212> TYPE: PRT
89 <213> ORGANISM: Artificial Sequence
91 <220> FEATURE:
92 <221> NAME/KEY: VARIANT
93 <222> LOCATION: (2)...(7)
94 <223> OTHER INFORMATION: Any amino acid, preferably not cysteine.
96 <221> NAME/KEY: VARIANT
97 <222> LOCATION: (9)...(12)
98 <223> OTHER INFORMATION: Any amino acid, preferably not cysteine.
W--> 100 <221> VARIANT
101 <222> LOCATION: (14)...(20)
102 <223> OTHER INFORMATION: Any amino acid, preferably not cysteine.
W--> 104 <221> VARIANT
105 <222> LOCATION: (22)...(22)
106 <223> OTHER INFORMATION: Any amino acid, preferably not cysteine.
W--> 108 <221> VARIANT
109 <222> LOCATION: (24)...(29)
110 <223> OTHER INFORMATION: Any amino acid, preferably not cysteine.
112 <223> OTHER INFORMATION: conserved motif
W--> 114 <400> 3
W--> 115 Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa
116 1 5 10 15
W--> 117 Xaa Xaa Xaa Xaa Gly Xaa Cys Xaa Xaa Xaa Xaa Xaa Cys Cys
118 20 25 30
121 <210> SEQ ID NO: 4
122 <211> LENGTH: 213
123 <212> TYPE: DNA
124 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Degenerate nucleotide encoding the polypeptide of
128 SEQ ID NO:2.

```

RAW SEQUENCE LISTING                      DATE: 09/26/2002  
 PATENT APPLICATION:    US/10/091,166B        TIME: 14:12:44

Input Set : A:\97.44D1.subseqlist2.txt  
 Output Set: N:\CRF4\09252002\J091166B.raw

```

W--> 130 <221> NAME/KEY: misc_feature
      131 <222> LOCATION: (1)...(213)
      132 <223> OTHER INFORMATION: n = a, g, c or t
W--> 134 <400> 4
W--> 135 athcaytayy tnynttgygc nytnyntty ytnttytng tncngtncc nggncaayggn 60
W--> 136 ggnathatha ayacnytnca raartrrrnnn tgyngngtnm gnggnggngm ntgygcngtn 120
W--> 137 ytnwsntgyy tncnaarga rgarcarath ggnaartgyw snacnmngng nmgnartgy 180
W--> 138 tgyngnmgna araartrraa rcntrraay atg 213
      140 <210> SEQ ID NO: 5
      141 <211> LENGTH: 20
      142 <212> TYPE: DNA
      143 <213> ORGANISM: Artificial Sequence
      145 <220> FEATURE:
      146 <223> OTHER INFORMATION: Oligonucleotide ZC14741
      148 <400> SEQUENCE: 5
      149 gagcacttgc cgatctgttc 20
      151 <210> SEQ ID NO: 6
      152 <211> LENGTH: 20
      153 <212> TYPE: DNA
      154 <213> ORGANISM: Artificial Sequence
      156 <220> FEATURE:
      157 <223> OTHER INFORMATION: Oligonucleotide ZC14740
      159 <400> SEQUENCE: 6
      160 ccaggtcatg gaggaatcat 20
      162 <210> SEQ ID NO: 7
      163 <211> LENGTH: 18
      164 <212> TYPE: DNA
      165 <213> ORGANISM: Artificial Sequence
      167 <220> FEATURE:
      168 <223> OTHER INFORMATION: Oligonucleotide ZC14780
      170 <400> SEQUENCE: 7
      171 ggaggaatca taaacaca 18
      173 <210> SEQ ID NO: 8
      174 <211> LENGTH: 18
      175 <212> TYPE: DNA
      176 <213> ORGANISM: Artificial Sequence
      178 <220> FEATURE:
      179 <223> OTHER INFORMATION: Oligonucleotide ZC14776
      181 <400> SEQUENCE: 8
      182 gccgatctgt tctcctt 18
      184 <210> SEQ ID NO: 9
      185 <211> LENGTH: 438
      186 <212> TYPE: DNA
      187 <213> ORGANISM: Homo sapiens
      189 <220> FEATURE:
      190 <221> NAME/KEY: CDS
      191 <222> LOCATION: (220)...(420)
      193 <400> SEQUENCE: 9
      194 acaaatccat agggagctct gccttaccat tgggttccta attactgag tgagtgggtg 60
  
```

## RAW SEQUENCE LISTING

DATE: 09/26/2002

PATENT APPLICATION: US/10/091,166B

TIME: 14:12:44

Input Set : A:\97.44D1.subseqlist2.txt

Output Set: N:\CRF4\09252002\J091166B.raw

```

195 tgttctgcat ggtgagaggc attggaatga tgcatacagaa aacatgtcat aatgtcatca 120
196 ctgtaatatg acaagaattg cagctgtggc tggaaccttt ataaagtac caagcacacc 180
197 ttttcatcca gtctcagcgt ggggtgaagc ctagcagct atg agg atc cat tat 234
198                                     Met Arg Ile His Tyr
199                                     1      5
201 ctt ctg ttt gct ttg ctc ttc ctg ttt ttg gtg cct gtt cca ggt cat 282
202 Leu Leu Phe Ala Leu Leu Phe Leu Phe Leu Val Pro Val Pro Gly His
203                                     10      15      20
205 gga gga atc ata aac aca tta cag aaa tat tat tgc aga gtc aga ggc 330
206 Gly Gly Ile Ile Asn Thr Leu Gln Lys Tyr Tyr Cys Arg Val Arg Gly
207                                     25      30      35
209 ggc cgg tgt gct gtg ctc agc tgc ctt cca aag gag gaa cag atc ggc 378
210 Gly Arg Cys Ala Val Leu Ser Cys Leu Pro Lys Glu Glu Gln Ile Gly
211                                     40      45      50
213 aag tgc tcg acg cgt ggc cga aaa tgc tgc cga aga aag aaa 420
214 Lys Cys Ser Thr Arg Gly Arg Lys Cys Cys Arg Arg Lys Lys
215                                     55      60      65
217 taaaaaacct gaaacatg 438
219 <210> SEQ ID NO: 10
220 <211> LENGTH: 67
221 <212> TYPE: PRT
222 <213> ORGANISM: Homo sapiens
224 <400> SEQUENCE: 10
225 Met Arg Ile His Tyr Leu Leu Phe Ala Leu Leu Phe Leu Phe Leu Val
226 1      5      10      15
227 Pro Val Pro Gly His Gly Gly Ile Ile Asn Thr Leu Gln Lys Tyr Tyr
228      20      25      30
229 Cys Arg Val Arg Gly Gly Arg Cys Ala Val Leu Ser Cys Leu Pro Lys
230      35      40      45
231 Glu Glu Gln Ile Gly Lys Cys Ser Thr Arg Gly Arg Lys Cys Cys Arg
232      50      55      60
233 Arg Lys Lys
234 65
237 <210> SEQ ID NO: 11
238 <211> LENGTH: 219
239 <212> TYPE: DNA
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Degenerate nucleotide sequence encoding the
244 polypeptide of SEQ ID NO:10.
W--> 246 <221> NAME/KEY: misc_feature
247 <222> LOCATION: (1)...(219)
248 <223> OTHER INFORMATION: n = a, g, c or t
W--> 250 <400> 11
W--> 251 atgmgnathc aytayytnyt nttygcnytn ytnttyynt tyytngtncc ngtnccnggn 60
W--> 252 cayggnggna thathaayac nytnccaraa trrrnntgym gngtnmgngg nggnmgntgy 120
W--> 253 gcngtnytnw sntgyytncc naargargar carathggna artgywsnac nmngngnmgm 180
W--> 254 aartgytgym gnmgnaaraa rtrraarccn trraayatg 219
256 <210> SEQ ID NO: 12

```

## RAW SEQUENCE LISTING

DATE: 09/26/2002

PATENT APPLICATION: US/10/091,166B

TIME: 14:12:44

Input Set : A:\97.44D1.subseqlist2.txt

Output Set: N:\CRF4\09252002\J091166B.raw

```

257 <211> LENGTH: 21
258 <212> TYPE: DNA
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: Oligonucleotide ZC15591
264 <400> SEQUENCE: 12
265 tgccgatctg ttctctcttt g 21
267 <210> SEQ ID NO: 13
268 <211> LENGTH: 25
269 <212> TYPE: DNA
270 <213> ORGANISM: Artificial Sequence
272 <220> FEATURE:
273 <223> OTHER INFORMATION: Oligonucleotide ZC15589
275 <400> SEQUENCE: 13
276 gaacaggcac caaaaacagg aagag 25
278 <210> SEQ ID NO: 14
279 <211> LENGTH: 37
280 <212> TYPE: PRT
281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: Defensin polypeptide
286 <400> SEQUENCE: 14
287 Gln Lys Tyr Tyr Cys Arg Val Arg Tyr Arg Cys Ala Val Leu Ser
288 1 5 10 15
289 Cys Leu Pro Lys Glu Glu Gln Ile Tyr Lys Cys Ser Thr Arg Tyr Arg
290 20 25 30
291 Lys Cys Cys Arg Arg
292 35
295 <210> SEQ ID NO: 15
296 <211> LENGTH: 29
297 <212> TYPE: PRT
298 <213> ORGANISM: Artificial Sequence
300 <220> FEATURE:
301 <223> OTHER INFORMATION: Defensin polypeptide
W--> 303 <221> NAME/KEY: VARIANT
304 <222> LOCATION: (26)...(26)
305 <223> OTHER INFORMATION: leucine, isoleucine, valine, phenylalanine, or
306 methionine
W--> 308 <400> 15
309 Gly Arg Cys Ala Val Leu Ser Cys Leu Pro Lys Glu Glu Cys Ile Gly
310 1 5 10 15
W--> 311 Lys Met Ser Thr Arg Gly Arg Lys Cys Xaa Arg Arg Lys
312 20 25
315 <210> SEQ ID NO: 16
316 <211> LENGTH: 30
317 <212> TYPE: PRT
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: Defensin polypeptide

```

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 09/26/2002  
PATENT APPLICATION: US/10/091,166B      TIME: 14:12:45

Input Set : A:\97.44D1.subseqlist2.txt  
Output Set: N:\CRF4\09252002\J091166B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. 2,3,4,5,6,7,9,10,11,12,14,15,16,17,18,19,20,22,24,25,26,27  
Seq#:3; Xaa Pos. 28,29  
Seq#:4; N Pos. 12,15,21,24,27,33,39,42,45,48,51,54,60,63,75,78,88,89,90,96  
Seq#:4; N Pos. 99,102,105,108,111,117,120,123,126,132,135,153,162,165,168  
Seq#:4; N Pos. 171,174,186,189,204  
Seq#:11; N Pos. 6,18,21,27,30,33,39,45,48,51,54,57,60,66,69,81,84,94,95,96  
Seq#:11; N Pos. 102,105,108,111,114,117,123,126,129,132,138,141,159,168,171  
Seq#:11; N Pos. 174,177,180,192,195,210  
Seq#:15; Xaa Pos. 26  
Seq#:16; Xaa Pos. 26  
Seq#:17; Xaa Pos. 26  
Seq#:35; Xaa Pos. 45  
Seq#:36; Xaa Pos. 45  
Seq#:37; Xaa Pos. 44  
Seq#:38; Xaa Pos. 44  
Seq#:39; Xaa Pos. 43  
Seq#:40; Xaa Pos. 43  
Seq#:41; Xaa Pos. 42  
Seq#:42; Xaa Pos. 42  
Seq#:43; Xaa Pos. 41  
Seq#:44; Xaa Pos. 41  
Seq#:45; Xaa Pos. 40  
Seq#:46; Xaa Pos. 40  
Seq#:47; Xaa Pos. 39  
Seq#:48; Xaa Pos. 39  
Seq#:49; Xaa Pos. 38  
Seq#:50; Xaa Pos. 38  
Seq#:51; Xaa Pos. 37  
Seq#:52; Xaa Pos. 37  
Seq#:53; Xaa Pos. 36  
Seq#:54; Xaa Pos. 36  
Seq#:55; Xaa Pos. 35  
Seq#:56; Xaa Pos. 35  
Seq#:57; Xaa Pos. 34  
Seq#:58; Xaa Pos. 34  
Seq#:59; Xaa Pos. 33  
Seq#:60; Xaa Pos. 33  
Seq#:61; Xaa Pos. 32  
Seq#:62; Xaa Pos. 32  
Seq#:63; Xaa Pos. 31  
Seq#:64; Xaa Pos. 31  
Seq#:65; Xaa Pos. 30  
Seq#:66; Xaa Pos. 30  
Seq#:67; Xaa Pos. 29

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 09/26/2002  
PATENT APPLICATION:    US/10/091,166B      TIME: 14:12:45

Input Set : A:\97.44D1.subseqlist2.txt  
Output Set: N:\CRF4\09252002\J091166B.raw

Seq#:68; Xaa Pos. 29  
Seq#:69; Xaa Pos. 28  
Seq#:70; Xaa Pos. 28  
Seq#:71; Xaa Pos. 27  
Seq#:72; Xaa Pos. 27

## VERIFICATION SUMMARY

DATE: 09/26/2002

PATENT APPLICATION: US/10/091,166B

TIME: 14:12:45

Input Set : A:\97.44D1.subseqlist2.txt

Output Set: N:\CRF4\09252002\J091166B.raw

L:100 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:3  
 L:104 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:3  
 L:108 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:3  
 L:114 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:3  
 L:115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
 L:117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16  
 L:130 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:134 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4  
 L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
 L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:60  
 L:137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:120  
 L:138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:180  
 L:246 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:250 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:11  
 L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
 L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:60  
 L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:120  
 L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:180  
 L:303 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:308 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:15  
 L:311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:16  
 L:323 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:328 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:16  
 L:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:16  
 L:343 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:348 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:17  
 L:351 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:16  
 L:652 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:657 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:35  
 L:662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:32  
 L:676 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:681 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:36  
 L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:32  
 L:698 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:703 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:37  
 L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:32  
 L:720 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:725 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:38  
 L:730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:32  
 L:742 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:747 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:39  
 L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:32  
 L:764 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:769 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:40  
 L:774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:32  
 L:786 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
 L:791 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:41  
 L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:32

## VERIFICATION SUMMARY

DATE: 09/26/2002

PATENT APPLICATION: US/10/091,166B

TIME: 14:12:45

Input Set : A:\97.44D1.subseqlist2.txt

Output Set: N:\CRF4\09252002\J091166B.raw

L:808 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:813 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:42  
L:818 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:32  
L:830 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:835 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:43  
L:840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:32  
L:852 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:857 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:44  
L:862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:32  
L:874 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:879 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:45  
L:884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:32  
L:896 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:901 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:46  
L:906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:32  
L:918 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:923 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:47  
L:928 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:32  
L:940 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:945 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:48  
L:950 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:32  
L:962 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:967 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:49  
L:972 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:32  
L:984 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:989 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:50  
L:994 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:32  
L:1006 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1011 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:51  
L:1016 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:32  
L:1028 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1033 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:52  
L:1038 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:32  
L:1050 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1055 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:53  
L:1060 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:32  
L:1072 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1077 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:54  
L:1082 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:32  
L:1094 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1099 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:55  
L:1104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:32  
L:1116 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1121 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:56  
L:1126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:32  
L:1138 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1143 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:57  
L:1148 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:32  
L:1160 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!

## VERIFICATION SUMMARY

DATE: 09/26/2002

PATENT APPLICATION: US/10/091,166B

TIME: 14:12:45

Input Set : A:\97.44D1.subseqlist2.txt

Output Set: N:\CRF4\09252002\J091166B.raw

L:1165 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:58  
L:1170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:32  
L:1182 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1187 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:59  
L:1192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:32  
L:1204 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1209 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:60  
L:1214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:32  
L:1226 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1231 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:61  
L:1234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:16  
L:1248 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1253 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:62  
L:1256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:16  
L:1270 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1275 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:63  
L:1278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:16  
L:1292 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1297 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:64  
L:1300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:16  
L:1314 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1319 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:65  
L:1322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:16  
L:1336 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1341 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:66  
L:1344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:16  
L:1358 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1363 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:67  
L:1366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:16  
L:1380 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1385 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:68  
L:1388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:16  
L:1400 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1405 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:69  
L:1408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:16  
L:1420 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1425 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:70  
L:1428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:16  
L:1440 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1445 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:71  
L:1448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:16  
L:1460 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:1465 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:72